

REMARKS

A Request for Continued Examination accompanies this paper for the purpose of removing the finality of the pending Office Action and obtaining entry of the above noted claim amendments.

Claims 1-12, 16-18 and 23 are pending in the application, with Claims 1, 16 and 17 having been amended, and with Claims 14 and 15 having been cancelled. Claims 1 and 16 are the independent claims herein. No new matter has been added. Reconsideration and further examination are respectfully requested.

Claim Rejections – 35 USC § 102(b)

Claims 1-3, 5-10, 12 and 16-18 are rejected as being anticipated by U.S. Patent No. 5,739,050 ("Farnworth").

In regard to claim 1, it appears that the Examiner based the rejection on an interpretation of "in contact with" that is broad enough to encompass a situation in which the two objects said to be "in contact with" each other are in fact not touching each other. As a somewhat philosophical example, the Examiner posits (at the bottom of page 8 of the present Office Action) a case in which a coffee cup rests on a coaster, which in turn rests on the top of a desk. The Examiner contends that the coffee cup is "in contact with" the desk in this case, notwithstanding that the coaster is between the cup and the desk. The Examiner thus, by analogy, asserts that Farnworth's IC die 14 is "in contact with" the "clip" (24 and 22) even though the "heat spreader" 20 is interposed between the die and the clip. However, it was never applicants' intention that the phrase "in contact with" have such a broad meaning as to include, in effect, "indirectly in contact with". Rather, that phrase was intended to mean direct, touching contact, as illustrated, for example, in FIG. 6 of the application (IC die 400 directly in contact with clip 300, which includes the pad 308--see also FIG. 3 and page 5, line 20 of the specification). Claim 1 has accordingly been amended to specify that the IC die is in direct contact with the clip when the die is being picked up. This amendment clearly excludes the broad interpretation of "in contact with" proposed by the Examiner and therefore serves to distinguish claim 1 from the process suggested in the Farnworth reference. Accordingly, at least

as now presented, claim 1 is patentable over Farnworth, since Farnworth does not teach picking up an IC die with the IC die in direct contact with a clip. Rather, in Farnworth, the die 14 is at most in indirect contact with clip 24/22 since “heat spreader” 20 is positioned in between die 14 and clip 24/22, preventing direct contact between die 14 and elements 24/22. This difference is reflective of the basic differences in objective between Farnworth’s process for assembling a temporary IC package, and the present application’s improved process for installing IC dies in permanent packages. It is therefore respectfully requested that the rejection of claim 1 be reconsidered and withdrawn.

Claims 2-12 and 23 are dependent on claim 1 and are submitted as patentable on the same basis as claim 1.

Applicants will now turn their attention to claim 16, which is the only other independent claim now presented.

At the outset, applicants note that the Examiner has responded in some detail to the arguments made in the Amendment filed herein under date of Sept. 16, 2005. While applicants respectfully differ with some contentions the Examiner has now made, applicants appreciate the Examiner’s active engagement with applicants’ arguments. Nevertheless, in one significant respect, it appears that the Examiner has not yet engaged with applicants’ arguments. Applicants specifically refer to the arguments made at the top of page 11 of the September amendment, as quoted immediately below:

In rejecting claim 11, the Examiner proposed to modify the teachings of Farnworth by adding the step of reflowing a solder layer to bond the die 14 to the pressure plate 20. However, to so modify Farnworth would be directly contrary to Farnworth’s intended purpose, which is to produce a temporary package for an IC for the purpose of testing the IC [see the first sentence of the Abstract in Farnworth]. If the die were soldered to the pressure plate 20, Farnworth’s process would no longer work in the intended manner. It is therefore respectfully suggested that the Examiner’s proposed modification of Farnworth’s teachings is contrary to the prior art as a whole, and that the rejection of claim 11 should be reconsidered and withdrawn.

This point, as yet un rebutted, is of particular importance in view of the present amendment to claim 16. For claim 16, in addition to now being rewritten in independent form, has also been amended to replace the term “bonding” with the narrower term “soldering”. It is

believed that this amendment clearly overcomes the pending rejection of claim 16, which rejection (judging from paragraph 17 of the present Office Action) is based on the Examiner's interpretation of "bonding" as encompassing being held together. While the Examiner's proposed modification of Farnworth's teaching to solder the die 14 and the "heat spreader" 20 together might arguably cover claim 16 as now presented, such a modification, as noted in the above-quoted passage from the previous Amendment, is directly contrary to Farnworth's essential purpose and teaching of assembling a temporary package for the IC. Thus the Examiner's proposed modification of Farnworth does not reflect an accurate consideration of the prior art as a whole. It is therefore respectfully submitted that claim 16 is now in condition for allowance, as are its dependent claims 17 and 18.

CONCLUSION

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-3460.

Respectfully submitted,

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